| Notice of Allowability  | Application No.  | Applicant(s)   |
|---|--|--|
|   | 10/017,325   | SHIBATA ET AL.   |
|   | Examiner   | Art Unit   |
|   | Junghwa M. Im  | 2811   |
| The MAILING DATE of this communication appe<br>All claims being allowable, PROSECUTION ON THE MERITS IS (herewith (or previously mailed), a Notice of Allowance (PTOL-85)<br>NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIG  | (OR REMAINS) CLOSED in thi<br>or other appropriate communic<br>GHTS. This application is subj  | s application. If not included ation will be mailed in due course. <b>THIS</b> |
| 1. This communication is responsive to <u>papres filed October 2</u>  | <u>24, 2005</u> .  |  |
| 2. The allowed claim(s) is/are 1-6,8 and 10-15.   |  |  |
| <ul> <li>3.  Acknowledgment is made of a claim for foreign priority uner a)  All b)  Some* c)  None of the: <ol> <li>1.  Certified copies of the priority documents have</li> <li>2.  Certified copies of the priority documents have</li> <li>3.  Copies of the certified copies of the priority documents have</li> <li>International Bureau (PCT Rule 17.2(a)).</li> </ol> </li> <li>* Certified copies not received:</li> </ul> | been received. been received in Application N  | lo   |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  |  |  |
| 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.  |  |  |
| 5. CORRECTED DRAWINGS ( as "replacement sheets") mus  (a) including changes required by the Notice of Draftspers  1) hereto or 2) to Paper No./Mail Date  (b) including changes required by the attached Examiner's Paper No./Mail Date  Identifying indicia such as the application number (see 37 CFR 1. each sheet. Replacement sheet(s) should be labeled as such in the  | on's Patent Drawing Review (   | the Office action of  Irawings in the front (not the back) of                  |
| 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.   |  |  |
| Attachment(s)  1. Notice of References Cited (PTO-892)  2. Notice of Draftperson's Patent Drawing Review (PTO-948)  3. Information Disclosure Statements (PTO-1449 or PTO/SB/0 Paper No./Mail Date  4. Examiner's Comment Regarding Requirement for Deposit of Biological Material  | 6.  Interview Sumi<br>Paper No./Ma<br>8), 7.  Examiner's Am<br>8.  Examiner's Sta<br>9.  Other | il Date newdment/Comment stement of Reasons for Allowance EDDIE LEE            |
|   |  | Sory patent <b>examiner</b><br>Nology center <b>2800</b>                       |

## **DETAILED ACTION**

## Allowable Subject Matter

Claims 1-6, 8 and 10-15 are allowed.

The following is an examiner's statement of reasons for allowance.

Prior art fails to teach or render obvious a semiconductor device with combinations of elements as set forth in the claims, including in particular the crystallinity of an Al containing semiconductor nitride underalyer with full width at half maximum X-ray rocking curve value of 90 seconds or below and the thickness of the underlayer set within 0.5-1000 um, and the thickness of the buffer layer set within 0.002-0.1 um.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Junghwa M. Im whose telephone number is (571) 272-1655. The examiner can normally be reached on MON.-FRI. 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C. Lee can be reached on (571) 272-1732. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/017,325

Art Unit: 2811

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jmi

EDDIE LEE
SUPERVISORY PATENT EXAMINER

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